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CLIL SEMINAR 2017 資料

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Lesson : Designed to Change the World

Aim of this lesson :

- a) Students will understand the lifestyles of people in developing countries.
- b) Students will think about the aim of creating products (life-saving products, life improving products).
- c) Students will be able to discuss the topic and make a problem-solution presentation.

Allotment of this lesson :

- a) Introduction of this lesson

Oral interaction and reading activity so that students can understand the topic and the content of this lesson.

- b) Reading Comprehension : Part1 — Part4, reading the passage aloud

- c) Further exploration of the topic(1) :

Students will be able to discuss the topic with the help of the members in their groups.

- d) Further exploration of the topic(2) :

Students will make a problem-solution presentation in front of the class.

Part1 写真等を活用し、本文内容を推測しながら Lesson を導入する

We often say things like “That dress has a nice design” or “This smartphone is cool.” But when you say something is well designed, do you ever think about who it’s designed for? For example, a designer works hard to create an elegant design for a new car. For consumers in advanced industrial countries, its beautiful appearance is important. However, for poor people in developing countries, who make up the majority of the human race, the beauty of a car’s design may not have much importance in their lives.

“Ninety-five percent of the world’s designers focus all of their efforts on developing products exclusively for the richest 10 percent of the world’s customers,” says Paul

Polak, founder of a nonprofit organization that creates practical products for developing countries. “Nothing less than a revolution in design is needed to reach the other 90 percent.” He calls this new way of thinking about making products “Design for the other 90 percent.”

Today, some designers are starting to design products for “the other 90 percent,” including billions of people who do not have regular access to the basic necessities of life, such as food, safe drinkable water, or shelter. The new designs directly address the problems that they are facing and are improving their lives.

Part2 例①を用いてデザインの中で我々の生活がどのように改善するかを考える

Millions of people in the world live many kilometers away from sources of safe drinking water. If they drink unsafe water, they may get a disease that is carried through water, such as cholera or dysentery. So they have to spend many hours each day transporting water from drinkable sources. People carry heavy loads of it on their heads over long distances, and this often damages their necks and shoulders. For hundreds of years, this hard labor has been done mainly by women and children.

The Q-Drum was created to solve this problem. It is a round tank with a hole in the center and was designed to transport water by “rolling it.” The Q-Drum greatly reduces the strain of carrying water. One family in East Timor had been making four trips each day to carry 40 liters of water until they got the Q-Drum. However, with the Q-Drum, they are now able to transport 50 liters of water at a time, so they only need to make one trip.

One South African woman who uses the Q-Drum says, “Water is our life. Now life is easier. I had seen my mother and her mother bent double and walking with sticks even before they were old, because of the days they spent carrying water. Even the small children can use the drum. They make a game of it. And their parents are free to work on other things for the family.”

Part3 例②を用いてデザインの中で我々の生活がどのように改善するかを考える

Can you imagine life without electricity? If it were not for electricity, your lives would be completely different. However, more than two billion people throughout the world live without electricity. Many of them use kerosene lamps for light, but the lamps give off harmful fumes and do not provide sufficient light for working or studying. Also, the cost of using kerosene every day is a heavy burden on the family budget.

Sam Goldman, an American who was living and working as a volunteer in a village in Benin, a country in West Africa, understood this problem. One day, there was an

incident in the village, which had no electricity. A kerosene lamp had started a fire which burned down his neighbor's house, and a 12-year-old boy was badly burned. This incident spurred Goldman to develop a safe and cost-efficient lantern. He took a course at Stanford University geared to designing products for people in developing countries. Through the course he developed a solar-powered lantern which he called the Kiran Solar Lantern. This lantern can provide up to eight hours of light when it is fully charged and does not require any fuel.

This lantern has provided two million people in over 40 countries throughout the world with a new source of light. Now children have a better study environment. "This lantern is much brighter than a kerosene lamp," says one 14-year-old girl in India. "Now we are more interested in studying." There is another benefit. Since the lantern has allowed people to work longer hours at night, their monthly incomes have increased.

Part4 我々の生活の中にある課題が、デザインの力でどのように解決できるかを考える

Designing the kinds of products for "the other 90 percent" requires a different approach. When designers try to make product designs more attractive or when more functions are added, product prices go up. People with money are able and willing to pay for those products. However, 2.6 billion people in the world live on less than two dollars a day and have only pennies to spend on necessities. For them, products must above all be affordable.

Before creating low-cost products, designers must understand the lifestyles of people in developing countries. They have to find out what kind of products they want and how much they can afford to spend on them. "You must look for what people really need — no more, no less," says Goldman.

People living in poverty welcome this attitude. "We feel that now we are finally being recognized as customers," they say. "We're happy that designers are asking us about our needs and developing products to meet them." As for the designers, they can see their designs are improving people's lives. With the aim of fighting poverty, designers are reaching out to people in local communities to create practical and even life-saving products. One by one, their designs are changing the world.